

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for managing rollover usage units for a subscriber to a rollover feature of one or more communication services, comprising:

receiving and storing rollover data elements wherein the rollover data elements include a subscriber identification and a balance of the rollover usage units available to offset an amount of overage units used in excess of an amount of package plan usage units available to the subscriber for a current billing cycle and wherein the balance of the rollover usage units available includes one or more unused and unexpired package plan usage units rolled over from at least one previous billing cycle;

receiving a request from a requesting entity for rollover data elements that apply to the subscriber being processed for a billing cycle; and

in response to receiving the request for the rollover data elements, presenting the rollover data elements for the subscriber identified in the request wherein the rollover data elements include the subscriber identification and the balance of the rollover usage units available to offset the amount of overage units used in the current billing cycle and wherein the balance of the rollover usage units is measured in at least one of a plurality of billable units and wherein one or more of the rollover usage units expire after X billing cycles of being available to offset the amount of overage units used by the subscriber and wherein X comprises a predetermined number which varies depending on a package plan of the subscriber, wherein the rollover data is presented to at least one accounting system wherein the rollover data presented includes the

amount of rollover usage units accumulated during a current billing cycle and wherein in response to the rollover data being presented, the accounting system defers the revenue associated with the amount of rollover usage units accumulated during a current billing cycle to one or more subsequent billing cycles until the rollover usage units at least one of become depleted and expire.

2. (Original) The method of claim 1, further comprising:

receiving one or more post-billing data elements for the subscriber identified in the request wherein the post-billing data elements include at least one of the following:

a subscriber identification;

an amount of rollover usage units accumulated during the current billing cycle comprising an amount of unused plan package usage units for the current billing cycle; and

an amount of overage units used during the current billing cycle; and

in response to receiving the post-billing data elements, updating rollover data elements with the post-billing data elements wherein updating rollover data elements includes adding the amount of rollover usage units accumulated during the current billing cycle to a balance of rollover usage units available to offset an amount of overage units used in a next billing cycle.

3. (Original) The method of claim 1, wherein the plurality billable units comprise at least one of the following:

a quantity of communication events;

a quantity of memory;

a quantity of data;
a quantity of time;
a quantity of communication sent;
a quantity of communication received;
a quantity of communication sent and received; and
a quantity of communication viewed.

4. (Original) The method of claim 1, wherein the rollover data elements are stored in a rollover management system, the rollover management system being adjunct from any rating/billing systems and wherein the rollover data elements are presented to one or more requesting entities in a format such that a variety of requesting entities are compatible to receive the rollover data elements.

5. (Canceled)

6. (Original) The method of claim 2, wherein the rollover data elements for the subscriber further include at least one of the following:

an amount of adjusted rollover usage units one of added to and deducted from the balance of rollover usage units made available to offset the amount of overage units used in the current billing cycle wherein one or more of the adjusted rollover usage units added to the rollover usage units expire after X billing cycles of being available to offset an amount of overage units used wherein X comprises a predetermined number which may vary depending on a package plan of the subscriber; and

an amount of the rollover usage units that will expire at the end of the current billing cycle when not applied to offset overage units used in the current billing cycle; and

wherein the rollover data elements requested for the subscriber identified in the request further include at least one of the following:

an amount of rollover usage units that will expire at the end of the current billing cycle when not applied to offset overage units used in the current billing cycle; and

an amount of adjusted rollover usage units added to or deducted from the balance of rollover usage units available since a last billing cycle.

7. (Original) The method of claim 6, wherein the post-billing data elements for the subscriber identified in the request further include at least one of the following:

an amount of rollover units that actually expired at the end of the current billing cycle; and

an amount of package plan units available for the current billing cycle.

8. (Original) The method of claim 7, wherein the rollover data elements for the subscriber further include:

a date earned for each accumulation of rollover usage units; and

a date earned for each accumulation of adjusted rollover usage units wherein the rollover usage units utilized to offset the overage units used are deducted from the oldest available and unexpired rollover usage units that are included in the balance of the rollover usage units available to offset an amount of overage units used in the current billing cycle.

9. (Original) The method of claim 7, wherein each accumulation of at least one of the rollover usage units and the adjusted rollover usage units are stored in a rollover billing cycle bucket representing the billing cycle in which at least one of the rollover usage units and the adjusted rollover usage units are earned and wherein upon receiving the request for the rollover data elements the method further comprises:

closing the billing cycle bucket for the current billing cycle;

establishing a new billing cycle bucket for a next billing cycle;

applying any rollover usage units and adjusted rollover usage units earned in the current billing cycle to the billing cycle bucket for the current billing cycle as the rollover usage units of the billing cycle bucket for the current billing cycle;

deducting the rollover usage units used to offset the overage units used in the current billing cycle from an oldest rollover billing cycle bucket still having a balance of rollover usage units that is unexpired; and

when the oldest rollover billing cycle bucket is depleted, deducting the rollover usage units used to offset the overage units used in the current billing cycle from a next oldest rollover billing cycle bucket still having a balance of rollover usage units that is unexpired.

10. (Original) The method of claim 2, wherein updating the rollover data elements for the subscriber further includes at least one of the following:

populating the overage units used in the current billing cycle bucket;

populating the rollover usage units accumulated in the current billing cycle bucket;

populating the rollover usage units expired in the current billing cycle bucket; and

populating the package plan usage units available in the current billing cycle bucket and the next billing cycle bucket.

11. (Original) The method of claim 1, periodically during a billing cycle further comprising:

receiving and storing an amount of package plan usage units that have been used by the subscriber, but that have not been billed; and

presenting for review, data representing said package plan usage units that have been used by the subscriber, but that have not been billed whereby a subscriber may review and plan the use of unbilled package plan usage units and rollover usage units prior to the closing of a billing cycle.

12. (Original) The method of claim 11, wherein the data representing said package plan usage units comprises at least one of a summary data matrix and a detail data matrix wherein the detail data matrix presents data including a date, a time, a duration, an identified subscriber, and an identified subscriber communication line of a communication.

13. (Original) The method of claim 1, wherein the communication services comprise at least one of the following:

a wireless telecommunications service;

a wireline telecommunications service;

a video communications service wherein the rollover usage units comprise at least one of minutes of use, message transmissions, video media viewed, and megabytes of memory;

a text messaging communications service wherein the rollover usage units comprise at least one of minutes of use, message transmissions, and megabytes of memory;

an Internet communications service; and

a satellite communications service.

14. (Original) The method of claim 3, wherein the requesting entity comprises at least one of the following:

a billing system of a wireless telecommunications carrier;

a billing system of a wireline telecommunications carrier;

a bill presentation system of at least one of a wireless communications carrier and a wireline communications carrier;

a billing system of a wireless and a wireline carrier;

a billing system of a video communications carrier;

a billing system of a text messaging communications carrier;

a billing system of an Internet service provider; and

an accounting system of one or more communication service carriers.

15. (Currently Amended) The method of claim 1 [[5]], wherein the rollover data elements are stored in a rollover database in the form of a rollover matrix and wherein the data elements for each subscriber further include at least one of the following:

a date and a time that the subscriber became a rollover customer;

a date and a time that the subscriber ended as a rollover customer;

a current rollover status of the subscriber;

for each of the previous X billing cycles, a balance of rollover usage units accumulated during the previous billing cycle;

for each of the previous X billing cycles, an amount of adjusted rollover usage units adjusted during the previous billing cycle;

for each of the previous X billing cycles, an amount of plan package usage units available for use anytime during the previous billing cycle;

for each of the previous X billing cycles, an amount of overage units assessed during the previous billing cycle;

for each of the previous X billing cycles, an amount of rollover usage units accumulated during the previous billing cycle comprising an amount of package plan units that were not used during the previous billing cycle;

for each of the previous X billing cycles, an amount of rollover usage units that expired during the previous billing cycle; and

a date earned for at least one of the following:

each balance of rollover usage units;

each amount of adjusted rollover usage units; each amount of package plan usage units;

each amount of overage units assessed;

each amount of rollover usage units accumulated; and

each amount of rollover usage units expired.

16. (Original) The method of claim 15, further comprising:

in response to a request for the rollover matrix from a requesting entity, retrieving and presenting the rollover matrix containing the rollover data elements for at least one of display and adjustments wherein the rollover data elements presented are presented via one of a web services layer and a direct connection in at least one of real time and batch communication; and

in response to receiving any adjustments, updating the rollover matrix in the rollover database.

17. (Original) The method of claim 6, further comprising:

receiving and storing a data history of adjustments for the subscriber wherein the adjustment data includes at least one of the following:

- an amount of adjusted rollover usage units added or deducted for the adjustment;

- a reason code identifying a reason for the adjustment wherein the reason comprises one of an error correction, a dispute resolution, a resale of expired rollover units at a reduced rate, and a marketing promotion;

- a date of each adjustment; and

- an identification of a user that made the adjustment;

receiving a request for the data history of adjustments for the subscriber wherein the request includes a subscriber identification of the subscriber and a date range of adjustment history coverage; and

in response to receiving the request, retrieving and presenting the adjustment data for the subscriber.

18. (Original) The method of claim 17, further comprising:

receiving a breakage notification for the subscriber to the rollover feature terminating a subscription to the rollover feature;

in response to receiving the breakage notification:

updating at least one of the following:

- a rollover status of the subscriber; and
- a date the subscription to the rollover feature ended;

retrieving and presenting the adjustment data for the subscriber;

retaining and maintaining the rollover data elements for a predetermined period of time after receiving the breakage notification wherein when the subscriber returns prior to the predetermined period of time, returning the balance of rollover usage units to the subscriber; and

at the end of the predetermined period of time without the return of the subscriber, removing the rollover data from storage, unloading the rollover data, and archiving the rollover data.

19. (Original) The method of claim 6, after one or more rollover units expire for the subscriber, further comprising:

reselling one or more of the rollover units that expired to the subscriber at a lower cost than an original cost; and

in response to reselling the rollover units, adjusting the rollover units to reactivate the rollover units that expired but were resold.

20. (Original) The method of claim 6, wherein prior to expiration of one or more rollover usage units for the subscriber, further comprising extending an expiration period of one or more of the rollover usage units expiring wherein the subscriber purchases at a lower cost than originally sold one or more subsequent billing cycles of use for one or more of the rollover usage units expiring.

21. (Original) The method of claim 12, further comprising:
in response to the subscriber changing from a first package plan having a rollover feature to a second package plan having a rollover feature, receiving a new rollover matrix; and
in response to receiving the new rollover matrix completing one of updating an existing rollover matrix for the subscriber with the new matrix and storing a new rollover matrix for the subscriber wherein rollover usage units accumulated and unexpired in the first plan package are rolled over for use in the second plan package.

22. (Original) A computer-controlled apparatus capable of performing the method of claim 1.

23. (Original) A computer-readable medium comprising computer executable instructions which, when executed by a computer, cause the computer to perform the method of claim 1.

24. (Currently Amended) A rollover management system for managing rollover usage units for a subscriber to a rollover feature of one or more communication services, comprising a computer and at least one database operative to:

[[to]] receive and store one or more rollover data elements wherein the rollover data elements include a subscriber identification and a balance of the rollover usage units available to offset an amount of overage units used in excess of an amount of package plan usage units available to the subscriber for a current billing cycle and wherein the balance of the rollover usage units available includes one or more unused and unexpired package plan usage units rolled over from at least one previous billing cycle;

[[to]] receive a request from at least one requesting entity for one or more rollover data elements that apply to a subscriber being processed for a billing cycle; [[and]]

in response to receiving the request for the rollover data elements, [[to]] present the rollover data elements for the subscriber identified in the request wherein the rollover data elements include the subscriber identification and the balance of the rollover usage units available to offset the amount of overage units used in the current billing cycle wherein the balance of the rollover usage units is measured in at least one of a plurality of billable units and wherein an aging application is operative to expire one or more of the rollover usage units after X billing cycles of being available to offset the amount of overage units used by the at least one subscriber and wherein X comprises a predetermined number which varies depending on a package plan of the subscriber; and

present the rollover data to at least one accounting system wherein the rollover data presented includes the amount of rollover usage units accumulated during a current billing cycle and wherein in response to the rollover data being presented, the accounting system defers the

revenue associated with the amount of rollover usage units accumulated during a current billing cycle to one or more subsequent billing cycles until the rollover usage units become depleted or expire.

25. (Original) The system of claim 24, further comprising:

means for receiving one or more post-billing data elements for the subscriber identified in the request wherein the post-billing data elements include at least one of the following:

a subscriber identification;

an amount of rollover usage units accumulated during the current billing cycle comprising an amount of unused plan package usage units for the current billing cycle; and

an amount of overage units used during the current billing cycle; and

in response to receiving the post-billing data elements, means for updating the rollover data elements with the post-billing data elements wherein updating the rollover data elements includes adding the amount of rollover usage units accumulated during the current billing cycle to a balance of rollover usage units available to offset an amount of overage units used in a next billing cycle.

26. (Original) The system of claim 24, wherein the plurality of billable units comprise at least one of the following:

a quantity of communication events;

a quantity of memory;

a quantity of data; a quantity of time;

a quantity of communication sent;
a quantity of communication received;
a quantity of communication sent and received; and
a quantity of communication viewed.

27. (Original) The system of claim 24, wherein the rollover data elements are presented to one or more requesting entities in a format such that a variety of requesting entities are compatible to receive the rollover data elements.

28. (Canceled)

29. (Original) The system of claim 25, wherein the rollover data elements for the subscriber further include at least one of the following:

an amount of adjusted rollover usage units one of added to and deducted from the balance of rollover usage units made available to offset the amount of overage units used in the current billing cycle wherein one or more of the adjusted rollover usage units added to the rollover usage units expire after X billing cycles of being available to offset an amount of overage units used wherein X comprises a predetermined number which may vary depending on a package plan of the subscriber; and

an amount of the rollover usage units that will expire at the end of the current billing cycle when not applied to offset overage units used in the current billing cycle; and

wherein the rollover data elements requested for the subscriber identified in the request further include at least one of the following:

an amount of rollover usage units that will expire at the end of the current billing cycle when not applied to offset overage units used in the current billing cycle; and

an amount of adjusted rollover usage units added to or deducted from the balance of rollover usage units available since a last billing cycle.

30. (Original) The system of claim 29, wherein the post-billing data elements for the subscriber identified in the request further include at least one of the following:

an amount of rollover units that actually expired at the end of the current billing cycle; and

an amount of package plan units available for the current billing cycle.

31. (Original) The system of claim 30, wherein the rollover data elements for the subscriber further include: a date earned for each accumulation of rollover usage units; and a date earned for each accumulation of adjusted rollover usage units wherein the rollover usage units utilized to offset the overage units used are deducted from the oldest available and unexpired rollover usage units that are included in the balance of the rollover usage units available to offset an amount of overage units used in the current billing cycle.

32. (Original) The system of claim 30, wherein each accumulation of at least one of the rollover usage units and the adjusted rollover usage units are stored in a rollover billing cycle bucket representing the billing cycle in which at least one of the rollover usage units and the adjusted rollover usage units are earned and wherein upon receiving the request for the pre-bill data elements the system is further operative to:

close the billing cycle bucket for the current billing cycle;

establish a new billing cycle bucket for a next billing cycle;

apply any rollover usage units and adjusted rollover usage units earned in the current billing cycle to the billing cycle bucket for the current billing cycle as the rollover usage units of the billing cycle bucket for the current billing cycle;

deduct the rollover usage units used to offset the overage units used in the current billing cycle from an oldest rollover billing cycle bucket still having a balance of rollover usage units that is unexpired; and

when the oldest rollover billing cycle bucket is depleted, deduct the rollover usage units used to offset the overage units used in the current billing cycle from a next oldest rollover billing cycle bucket still having a balance of rollover usage units that is unexpired.

33. (Original) The system of claim 25, wherein updating the rollover data elements for the subscriber further includes the system further operative to execute at least one of the following:

populate the overage units used in the current billing cycle bucket;

populate the rollover usage units accumulated in the current billing cycle bucket;

populate the rollover usage units expired in the current billing cycle bucket; and

populate the package plan usage units available in the current billing cycle bucket and the next billing cycle bucket.

34. (Original) The system of claim 25, further operative to periodically during a billing cycle, receive and store an amount of package plan usage units that have been used by the subscriber, but that have not been billed; and

to present for review, data representing said package plan usage units that have been used by the subscriber, but that have not been billed;

whereby a subscriber may review and plan the use of unbilled package plan usage units and rollover usage units prior to the closing of a billing cycle.

35. (Original) The system of claim 34, wherein the data representing said package plan usage units comprises at least one of a summary data matrix and a detail data matrix wherein the detail data matrix presents data including a date, a time, a duration, an identified subscriber, and an identified subscriber communication line of at least one communication.

36. (Original) The system of claim 29, further operative to store the rollover data elements the database in the form of a rollover matrix wherein the data elements for the subscriber further include at least one of the following:

a date and a time that the subscriber became a rollover customer;

a date and a time that the subscriber ended as a rollover customer;

a current rollover status of the subscriber;

for each of the previous X billing cycles, a balance of rollover usage units accumulated during the previous billing cycle; for each of the previous X billing cycles, an amount of adjusted rollover usage units adjusted during the previous billing cycle;

for each of the previous X billing cycles, an amount of plan package usage units available for use anytime during the previous billing cycle;

for each of the previous X billing cycles, an amount of overage units assessed during the previous billing cycle;

for each of the previous X billing cycles, an amount of rollover usage units accumulated during the previous billing cycle comprising an amount of package plan units that were not used during the previous billing cycle;

for each of the previous X billing cycles, an amount of rollover usage units that expired during the previous billing cycle; and

a date earned for at least one of the following:

- each balance of rollover usage units;

- each amount of adjusted rollover usage units;

- each amount of package plan usage units;

- each amount of overage units assessed;

- each amount of rollover usage units accumulated; and

- each amount of rollover usage units expired.

37. (Original) The system of claim 36, further operative to:

in response to a request for the rollover matrix from a requesting entity, retrieve and present the rollover matrix containing the rollover data elements for at least one of display and adjustments wherein the rollover data elements are presented via one of a web services layer and a direct connection in at least one of real time and batch communication; and

in response to receiving any adjustments, operative to update the rollover matrix in the database.

38. (Original) The system of claim 30, further operative to:
receive and store a data history of adjustments for the subscriber wherein the adjustment data includes at least one of the following:

an amount of adjusted rollover usage units added or deducted for the adjustment;

a reason code identifying a reason for the adjustment wherein the reason comprises one of an error correction, a dispute resolution, a resale of expired rollover units at a reduced rate, and a marketing promotion;

a date of each adjustment; and

an identification of a user that made the adjustment;

receive a request for the data history of adjustments for the subscriber wherein the request includes a subscriber identification of the subscriber and a date range of adjustment history coverage; and

in response to receiving the request, retrieve and present the adjustment data for the subscriber.

39. (Original) The system of claim 38, further operative to:
receive a breakage notification for the subscriber to the rollover feature terminating a subscription to the rollover feature;

in response to receiving the breakage notification:

update at least one of the following:

a rollover status of the subscriber; and

a date the subscription to the rollover feature ended;

retrieve and present the adjustment data for the subscriber;

retain and maintain the rollover data elements for a predetermined period of time after receiving the breakage notification wherein when the subscriber returns prior to the predetermined period of time, return the balance of rollover usage units to the subscriber;

and

at the end of the predetermined period of time without the return of the subscriber, remove the rollover data from storage, unload the rollover data, and archive the rollover data.

40. (Original) The system of claim 30, further operative after one or more rollover units expire for the subscriber, to:

resell one or more of the rollover units that expired to the subscriber at a lower cost than an original cost; and

in response to reselling the rollover units, adjust the rollover units to reactivate the rollover units that expired but were resold.

41. (Original) The system of claim 30, wherein prior to expiration of one or more rollover usage units for the subscriber, further operative to extend an expiration period of one or more of the rollover usage units expiring wherein the subscriber purchases at a lower cost than originally sold one or more subsequent billing cycles of use for one or more of the rollover usage units expiring.

42. (Original) The system of claim 12, further comprising: a web services layer and a subscriber maintenance interface point further operative to:

in response to the subscriber changing from a first package plan having a rollover feature to a second package plan having a rollover feature, receive a new rollover matrix; and

a data layer further operative to: in response to receiving the new rollover matrix complete one of an update to an existing rollover matrix for the subscriber with the new matrix and a storage of a new rollover matrix for the subscriber wherein rollover usage units accumulated and unexpired in the first plan package are rolled over for use in the second plan package.